



STATE OF MARYLAND

# DHMH

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**April 8, 2011**

## Public Health & Emergency Preparedness Bulletin: # 2011:13 Reporting for the week ending 04/02/11 (MMWR Week #13)

### CURRENT HOMELAND SECURITY THREAT LEVELS

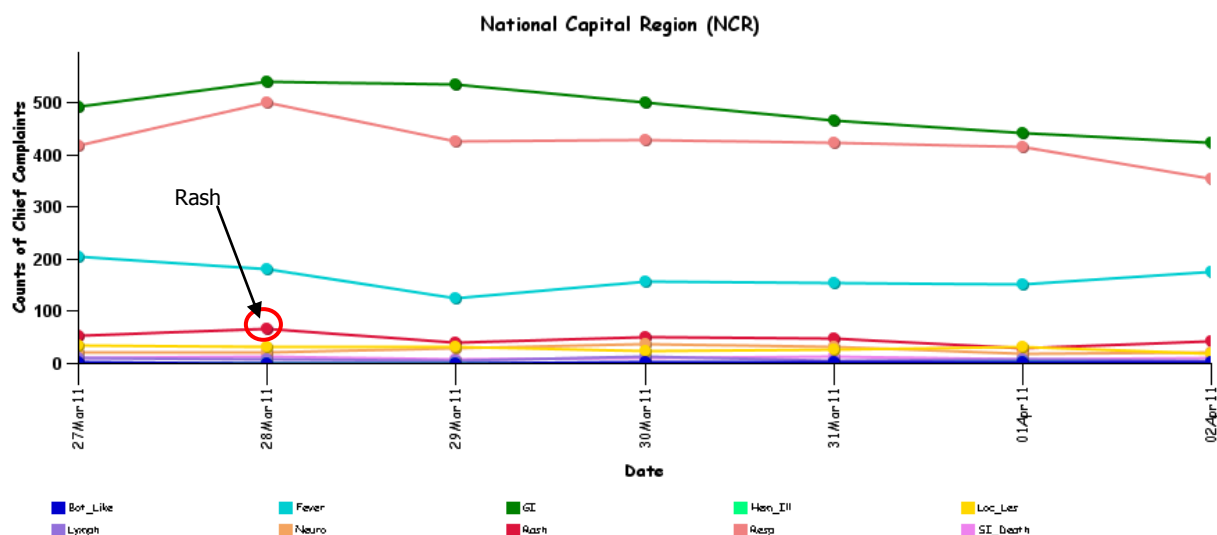
**National:** Yellow (ELEVATED) \*The threat level in the airline sector is Orange (HIGH)  
**Maryland:** Yellow (ELEVATED)

### SYNDROMIC SURVEILLANCE REPORTS

#### **ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):**

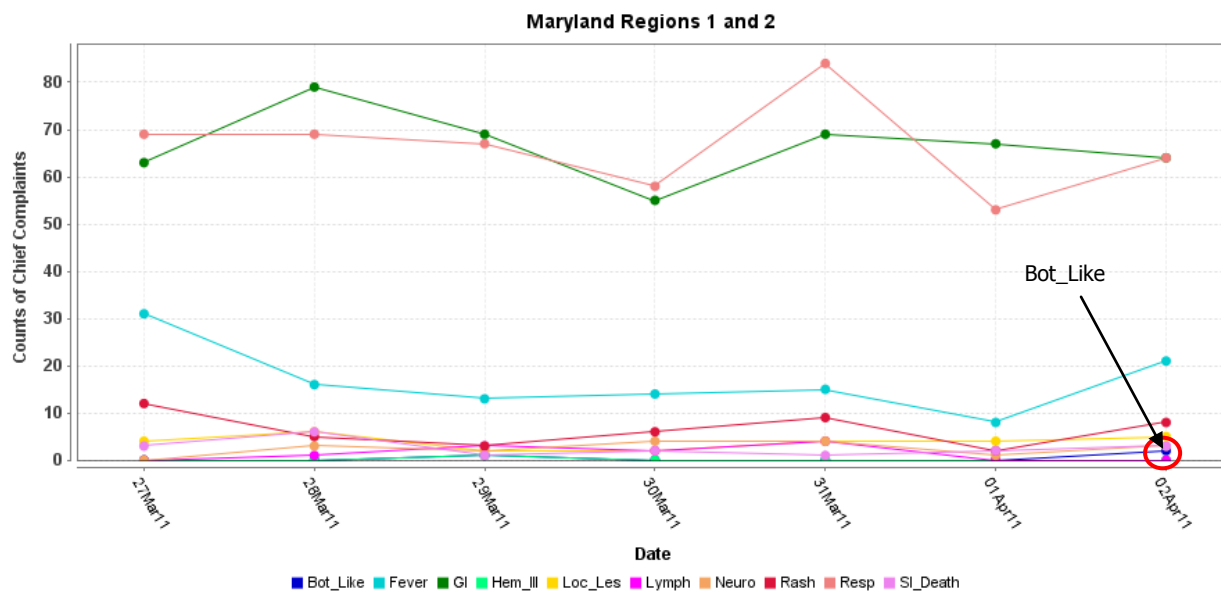
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

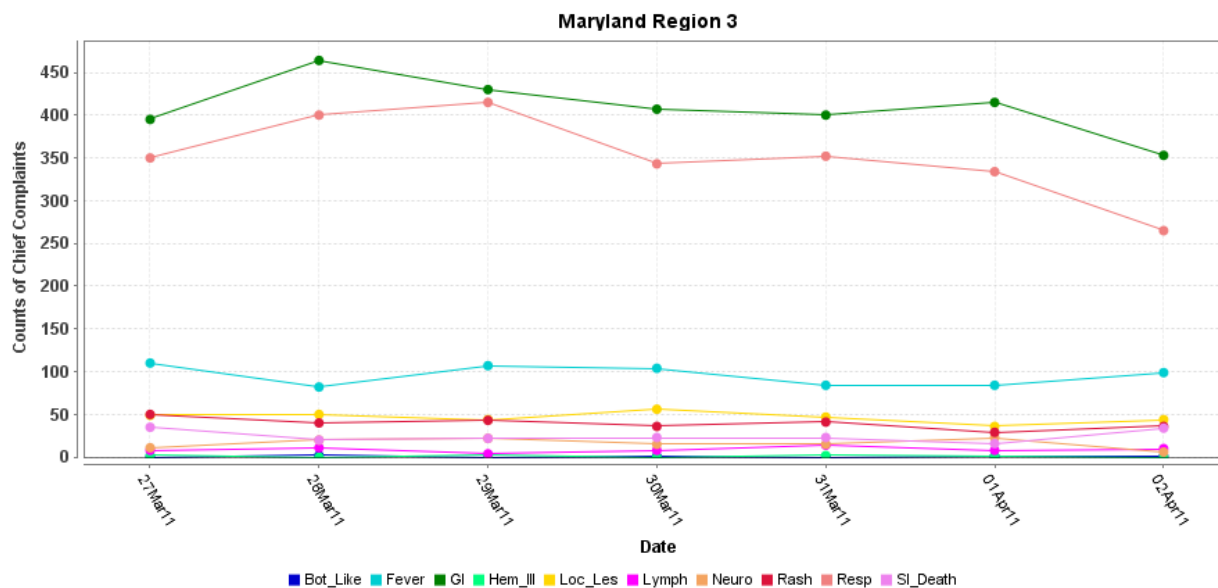


\*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

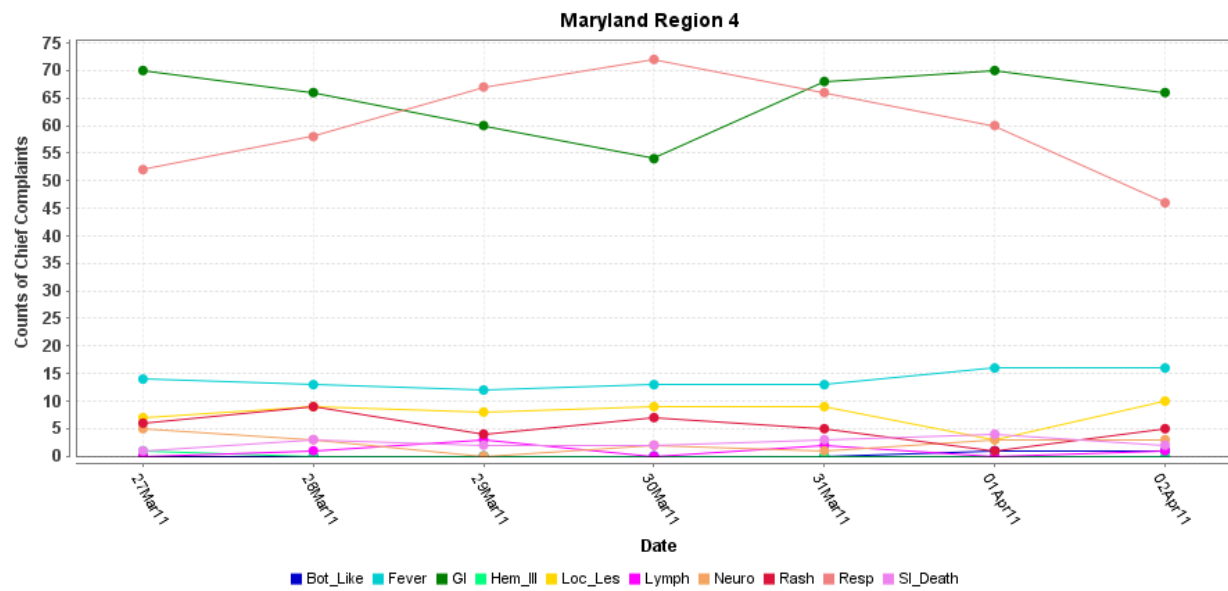
## MARYLAND ESSENCE:



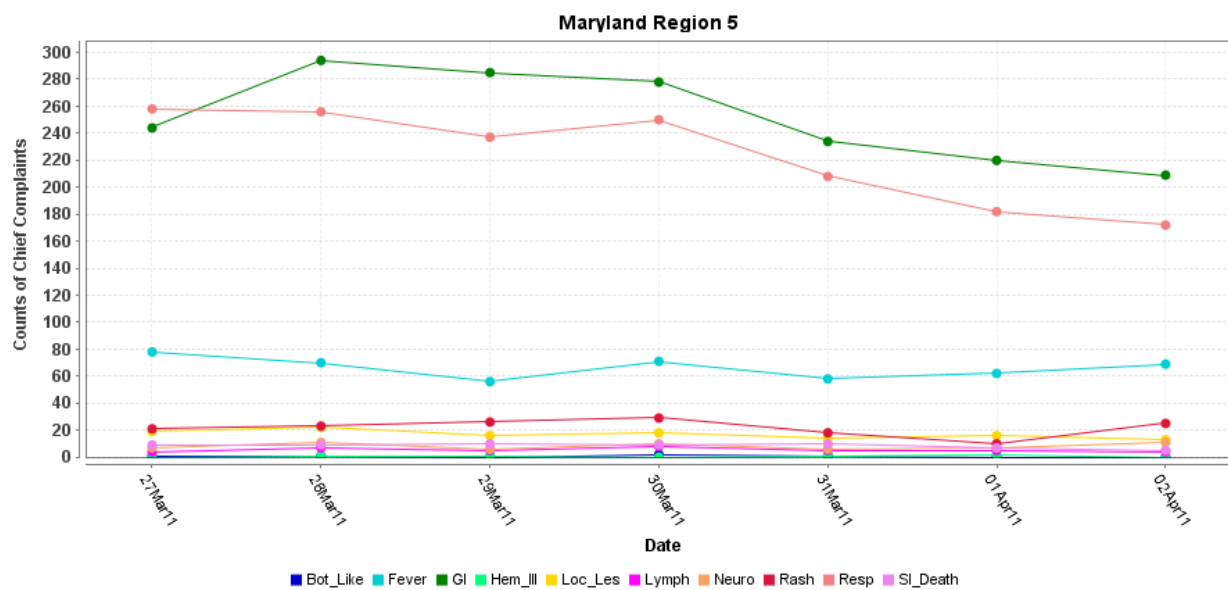
\* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



\* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



\* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE

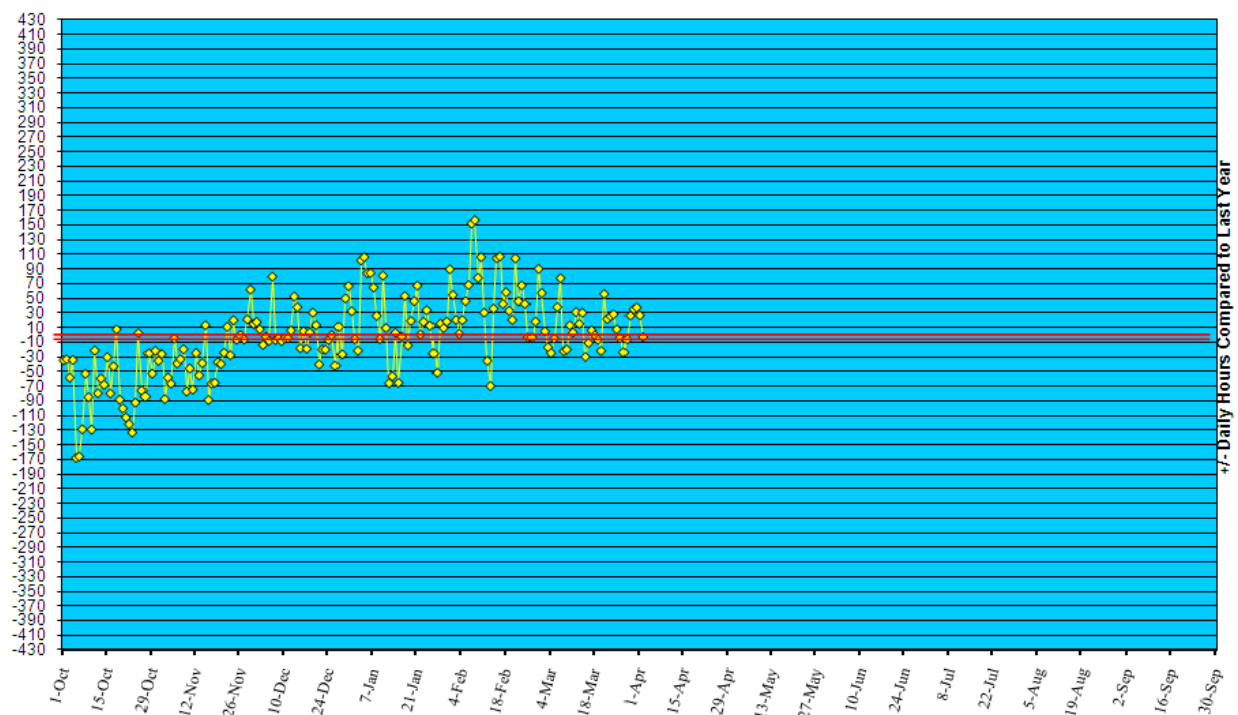


\* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

## **REVIEW OF EMERGENCY DEPARTMENT UTILIZATION**

**YELLOW ALERT TIMES (ED DIVERSION):** The reporting period begins 10/01/10.

### **Statewide Yellow Alert Comparison Daily Historical Deviations October 1, '10 to April 2, '11**



## **REVIEW OF MORTALITY REPORTS**

**Office of the Chief Medical Examiner:** OCME reports no suspicious deaths related to an emerging public health threat for the week.

## **MARYLAND TOXIDROMIC SURVEILLANCE**

**Poison Control Surveillance Monthly Update:** Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in February 2011 did not identify any cases of possible public health threats.

## **REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS**

### **COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):**

<b>Meningitis:</b>	<b><u>Aseptic</u></b>	<b><u>Meningococcal</u></b>
New cases (March 27 – April 2, 2011):	9	0
Prior week (March 20 – March 26, 2011):	8	0
Week#13, 2010 (March 28 – April 3, 2010):	10	0

**2 outbreaks were reported to DHMH during MMWR week 13 (March 27 – April 2, 2011)**

## **2 Gastroenteritis outbreaks**

2 outbreaks of GASTROENTERITIS in Assisted Living Facilities

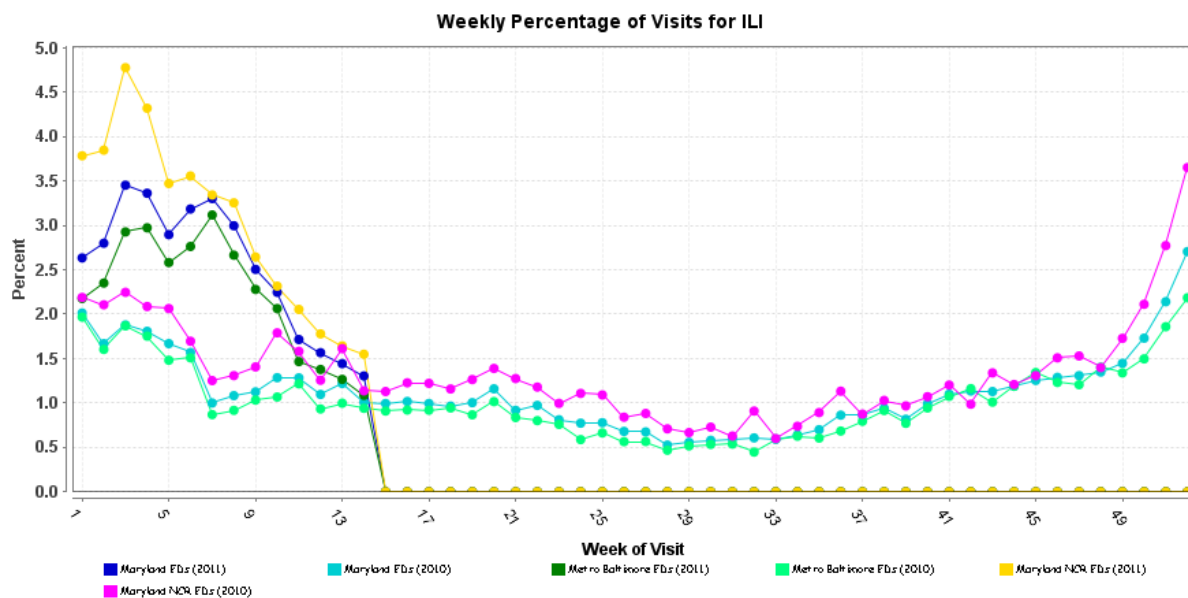
## **MARYLAND SEASONAL FLU STATUS**

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity was LOCAL for Week 13.

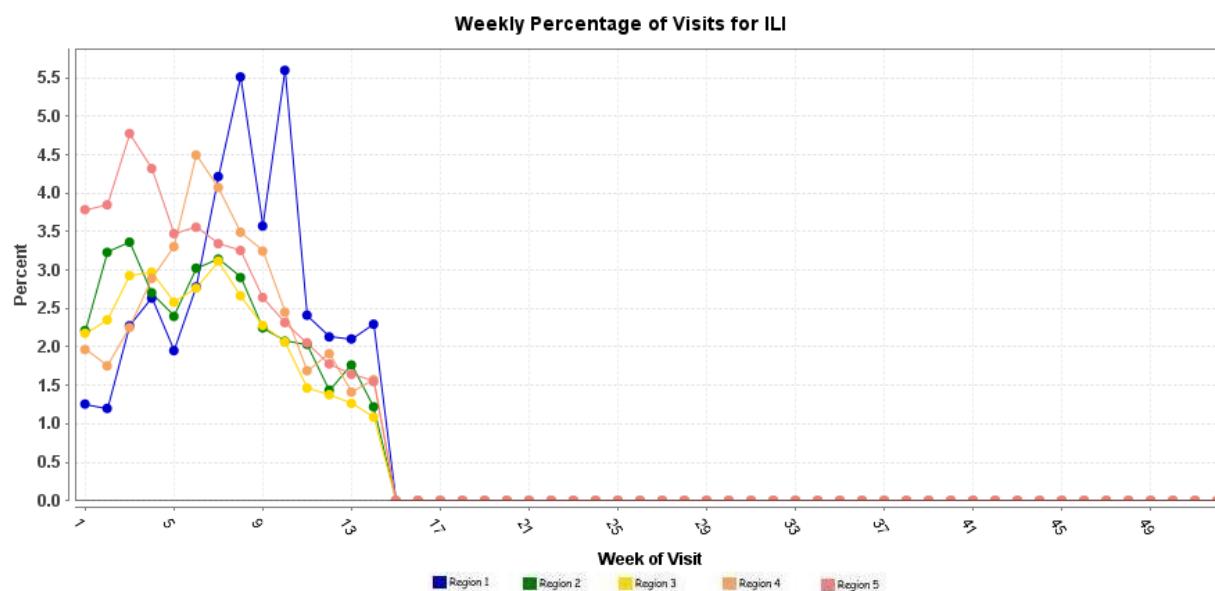
## **SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS**

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.

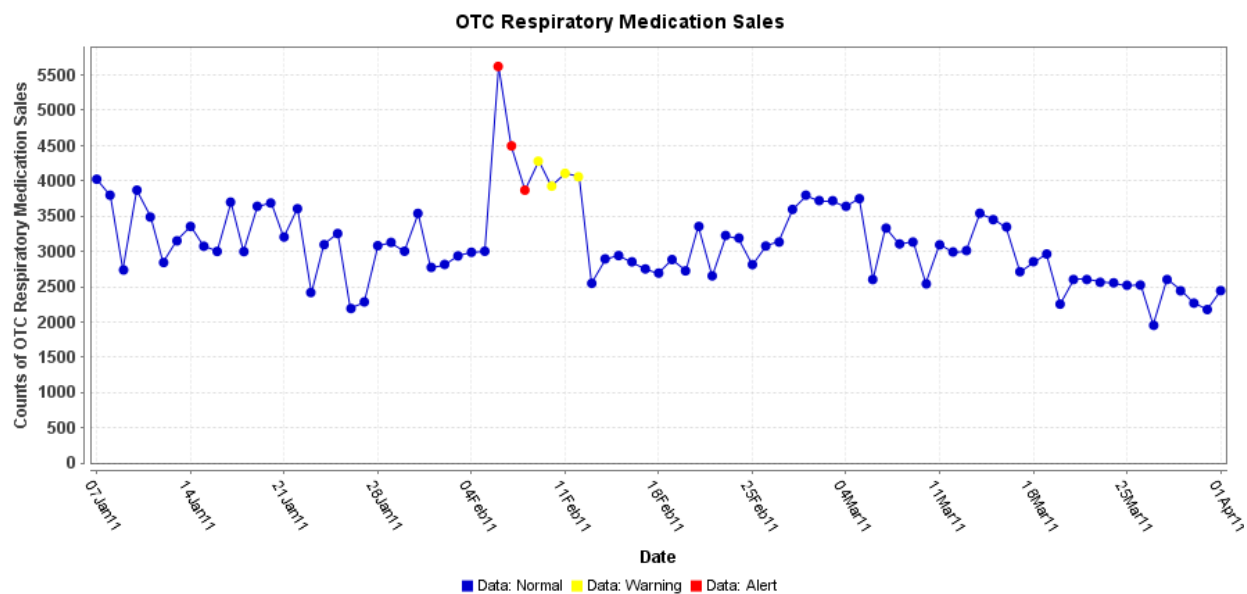


\* Includes 2010 and 2011 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



#### OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



## **PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS**

**WHO update:** The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of April 1, 2011, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 539, of which 318 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

**AVIAN INFLUENZA, HUMAN (INDONESIA):** 01 April 2011, The Ministry of Health of Indonesia has announced a confirmed case of human infection with avian influenza A (H5N1) virus. The case is a 28-year-old female from Gunung Kidul district, Yogyakarta Province. She developed symptoms on 1 Mar 2011, was admitted to a health care facility on 6 Mar 2011 and referred to a hospital on 11 Mar 2011. She died on 14 Mar 2011. The patients' family owned chicken and ducks, and the patient visited local village/town traditional market on a daily basis. There were many free roaming poultry in the neighborhood and it was reported there were chicken deaths in the previous months. Laboratory tests have confirmed infection with avian influenza A (H5N1) virus. Of the 176 cases confirmed to date in Indonesia, 145 have been fatal.

**LOW PATHOGENIC AVIAN INFLUENZA, HUMAN (BANGLADESH):** 30 March 2011, A single human case of infection by low pathogenic avian influenza (H9N2) virus has been reported by the Institute of Epidemiology Disease Central and Research (IEDCR), in Dhaka, Bangladesh. The identification is dated 26 Mar 2011 and designated confirmed. The location is given as Kamalapur, Dhaka Division. No further information is available.

**AVIAN INFLUENZA, HUMAN (EGYPT):** 30 March 2011, The Ministry of Health of Egypt has announced 3 new confirmed cases of human infection with avian influenza A (H5N1) virus. The 1st case is a 32-year-old male from Suez Governorate. He developed symptoms on 8 Mar 2011, was hospitalized on 12 Mar 2011, and died on 13 Mar 2011. The 2nd case is a 28-year-old female from Giza Governorate. She developed symptoms on 8 Mar 2011 and was hospitalized on 10 Mar 2011. She is in a stable condition. The 3rd case is a 4-year-old male from Behira Governorate. He developed symptoms on 5 Mar 2011 and was hospitalized on 7 Mar 2011. He recovered and was discharged on 12 Mar 2011. Investigations into the source of infection indicate that the cases had exposure to sick and/or dead poultry suspected to have avian influenza. The cases were confirmed by the Egyptian Central Public Health Laboratories, a National Influenza Center of the WHO Global Influenza Surveillance Network. Of the 133 cases confirmed to date in Egypt, 45 have been fatal.

## **NATIONAL DISEASE REPORTS**

**SALMONELLOSIS, (RHODE ISLAND):** 29 March 2011, The Rhode Island Department of Health said a salmonella outbreak appears to be connected to raw eggs. The department said Mon 28 Mar 2011, it has received reports of 33 possible salmonella cases connected to tainted pastries made by a Johnston bakery. "The investigation is ongoing as we speak. We do expect to see reported illnesses through the end of this week," said Health Department spokeswoman Annemarie Beardsworth. The department said of those, 11 tested positive for salmonella and 17 people were hospitalized. Health officials said the common thread appears to be the consumption of zeppoles, an Italian pastry similar to a doughnut, made by DeFusco's Bakery in Johnston. "All of them had purchased a baked good from either DeFusco's or a baked good that DeFusco's had supplied." The department said the pastry shells had been stored in used egg crates, which could have exposed them to infected raw eggs. Health experts are now trying to pinpoint the source of infection in the eggs. On Fri 25 Mar 2011, the department announced a recall of all baked goods sold at DeFusco's following an inspection of the Johnston store. Officials said they found that pastry cream used in zeppoles and eclairs was stored at unsafe temperatures. "If anyone has any of these recalled products, whether it's on the counter in your kitchen or if you have put them in your freezer to save them for another time, please throw them out. It's not worth taking a chance at getting sick," Beardsworth said. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) \*Non-suspect case

## **INTERNATIONAL DISEASE REPORTS**

**ST. LOUIS ENCEPHALITIS (ARGENTINA):** 02 April 2011, In a press conference, the Minister of Public Health, Oscar Balverdi, announced this morning [31 Mar 2011] that now "There are 5 laboratory confirmed cases" of the new disease [St. Louis encephalitis virus infection] transmitted by a mosquito. Moreover, he said, 6 or 7 more cases are under study. The virus infects people when they are bitten by *Culex pipiens*, a common mosquito, that transmits a disease [virus] called St. Louis encephalitis (SLE). According to the Minister, the 5 patients infected by this virus are progressing well and all are from the [provincial] capital. Balverdi explained that the disease [virus] is transmitted by a vector, a common mosquito, that bites virus-infected birds and later transmits it to people when it bites them. "This virus is not transmitted from person to person," indicated the Minister. The symptoms are the same as those presented when one contracts any virus disease (persistent fever, headache, malaise). Balverdi

encouraged the community to seek medical attention if these symptoms present themselves, and also, take the same measures to avoid breeding [and bites] by any mosquito. That is to say, avoid water collection, use repellants, etc. With respect to the man from Santa Lucia who died yesterday [30 Mar 2011], Balverdi said that they still do not know if he was infected by the virus and the case is under study. (Viral Encephalitis is listed in Category B on the CDC List of Critical Biological Agents) \*Non-suspect case

**TULAREMIA (NORWAY):** 01 April 2011, From 1 Jan to 25 Mar 2011, 39 confirmed cases (16 female and 23 male) of tularemia were reported from the counties of Sor-Trondelag (28 cases), More og Romsdal (5 cases), and Nord-Trondelag (6 cases) in central Norway. A confirmed case was defined as a person who had clinical symptoms compatible with tularemia or had used drinking water from the same source as a previous case, and in whom Francisella tularensis infection was confirmed by a laboratory test as described below. The cases were geographically scattered within each county, involving 13 different municipalities, and were not linked to one common source. In comparison, 7 cases were reported in total from other parts of the country in the same period. In 2009 and 2010 4 and 8 cases respectively were reported from central Norway. Tularemia is a zoonotic disease caused by the bacterium F. tularensis. 4 F. tularensis subspecies are recognized: tularensis, holarctica, mediasiatica and novicida. In Europe, the infection is due to subspecies holarctica, which causes in general less severe disease than subspecies tularensis, which is common in North America. Several vectors may be involved in transmitting the disease to humans, commonly rodents and hares, but infection may also be transmitted via insect bites. Several clinical forms are recognised, with oropharyngeal and ulceroglandular disease being the most common clinical presentations in Norway. Oropharyngeal disease is commonly associated with contaminated food and water, while ulceroglandular forms are more often seen when there has been skin contact with infected animals or after insect bites. Outbreaks of oropharyngeal tularemia have previously been reported from several European countries. Tularemia is a notifiable disease in Norway and during the past 10 years, 3 outbreaks were reported in Norway and all were associated with water sources in areas where dead lemmings (Lemmus lemmus) had been observed previously. From 2001 to 2010, between 3 and 66 cases of tularemia were reported annually in the whole country, with an increase from 16 to 32 cases on average (data available from <<http://www.msis.no>>). This increase may in part be explained by the outbreaks mentioned above. In the outbreak described here, the most common clinical presentation was fever and pharyngitis (oropharyngeal type, 21 cases) and cervical lymphadenopathy (glandular/ulceroglandular type, 10 cases). Among the remaining 8 tularemia cases, 2 were classified as respiratory and 2 as typhoid type, while 3 were asymptomatic and clinical information was unavailable for 1 case. The diagnosis was primarily established by serology (microagglutination and an in-house IgG/IgM Elisa) in 30 patients, by F. tularensis specific PCR analysis in seven patients (9) and by blood culture (BactAlert, BioMerieux) in 2 patients. The 2 bacterial isolates were verified as F. tularensis by PCR and sequencing of the 16S rDNA gene, and confirmed as non-subspecies tularensis by pdpA PCR. Of the 39 diagnosed cases, 34 had been drinking water from a private well or a stream. F. tularensis DNA was detected by PCR in filtered water from 5 different wells tested in Sor-Trondelag. 7 cases in 1 municipality were linked to the same water source. Apart from that, only 2 cases have been confirmed to share a common well so far. Follow-up serology has been recommended for several of the persons exposed to some of the putative water sources. The current outbreak involves a large number of municipalities in 3 counties in central Norway. The clinical presentation with oropharyngeal tularemia and cervical lymphadenopathy linked to the use of private wells in the winter season makes contaminated water the most likely source of infection in this outbreak. Detection of F. tularensis DNA by PCR analyses in some of the wells supports this assumption for some of the cases. Use of private wells is relatively common in rural areas of Norway although exact data on such use are not available. The precise mechanism of contamination of the wells with F. tularensis is as yet unknown. However, November and December 2010 were unusually cold months, while in January 2011 temperatures increased leading to melting of snow and possible contamination of private wells by surface water contaminated with bacteria from rodent cadavers or rodent excreta. Since the incubation period for tularemia may be up to 3 weeks, and time from symptoms until seroconversion might be up to 6 weeks, more cases may follow. Tularemia has traditionally been called both 'lemming fever' and 'hare plague' and this clearly indicates rodents and hares as transmitters of disease. Years with a great increase in the rodent population are seen with intervals of about 3 to 4 years and in the summer and autumn of 2010, a high density of lemmings could be observed in the southern and central parts of Norway. Simultaneously, the Norwegian Veterinary Institute observed a wide geographical distribution of fatal cases of tularemia in the mountain hare (Lepus timidus) in these regions. The mountain hare is very susceptible to this infection and normally dies from septicemia within a few days after exposure. The use of small streams and private wells as a source of drinking water and for other purposes in rural areas of Norway is a matter of concern. In existing guidelines issued by the National Institute of Public Health the population is advised to boil drinking water and inspect the wells for dead rodents in case of suspected or confirmed cases of waterborne tularemia. Every well owner should make the necessary effort to prevent small rodents from entering the well water by carefully covering every opening and plugging every small hole where the rodents can enter. It is also important to secure the well from contamination by surface water after snow melting. In case of proven or suspected contaminated wells, the water should be disinfected before further use. However, this may not be feasible for persons who use drinking water from a stream. The Norwegian Food Safety Authority has recently released information to the media and to the general public with similar advice and information in relation to the current outbreak. The local health authority in each municipality is responsible for instituting infection control measures including advice to the public and investigations of the putative drinking water sources. (Tularemia is listed in Category A on the CDC List of Critical Biological Agents) \*Non-suspect case

**PLAGUE, PNEUMONIC (MADAGASCAR):** 01 April 2011, In Madagascar, the death toll from plague is rising. According to official figures as 60 people died of the infectious disease. About 200 people were also infected with the plague, the health authority said in Antananarivo. "We are very concerned," said Bruno Maes from the UN children's agency UNICEF in the capital of Madagascar over the rapid spread of the plague. Meanwhile, almost all regions of the island nation in southeast Africa are affected by the disease. Plague is transmitted primarily through the bite of rat fleas to humans. Many rats flee in the rainy season and periodic flooding from November to April in the villages and towns. (Plague is listed in Category A on the CDC List of Critical Biological Agents) \*Non-suspect case

**HANTAVIRUS (CHILE):** 31 March 2011, A possible case of [a] hantavirus [infection] was admitted to the Higuera Hospital in Talcahuano. According to the history, the case is a man in serious condition, presenting with symptoms of the disease. The Institute of Public Health is testing the samples. The case is a 34-year-old man who works collecting rose hips in the Copiulemu area where, presumably, he would have contracted this fatal disease. Information was provided by the Health SEREMI [Regional



Ministerial Secretariat], Oscar Aliaga, who added that an epidemiological investigation has now been initiated. The SEREMI added that the Public Health Institute is carrying out all the tests to corroborate the real health status of the man. One recalls that last year [2010], 10 people in the region were affected by [a] hantavirus [infection], of whom 9 were unable to resist the powerful attack of the disease [and died]. So far this year [2011], 2 cases have been registered, the 1st in the Pinto community and the other in Los Angeles. The total is not at all positive: of these 2 infected individuals, the 2 died due to the virus [infection]. (Hantavirus is listed in Category C on the CDC List of Critical Biological Agents) \*Non-suspect case

**BOTULISM (ARMENIA):** 30 March 2011, Hospitalized a week ago for botulism, an 80-year-old woman died on 20 Mar 2011 in a hospital in Yerevan. NEWS.am reported recently that on 13 Mar 2011, 3 women aged 56, 71, and 80 were transferred from the town of Ijevan [Tavush province] to Yerevan, Armenia's capital. (Botulism is listed in Category A on the CDC List of Critical Biological Agents) \*Non-suspect case

**SALMONELLOSIS (COLOMBIA):** 30 March 2011, The staff from Invima [National Institute for Drug and Food Surveillance by its initials in Spanish] and from laboratories of the Cauca department [state or province equivalent] Secretariat of Health have been conducting a series of studies to identify the causes of an outbreak of gastroenteritis that affected about 128 people and was linked to a well-known fast food restaurant. According to an initial report from the Cauca Secretariat of Health, although laboratory results are still pending for some of the samples taken from patients, preliminary results indicate that the patients contracted salmonellosis after eating contaminated meat. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) \*Non-suspect case

#### **OTHER RESOURCES AND ARTICLES OF INTEREST**

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmh.maryland.gov/>

Maryland's Resident Influenza Tracking System: <http://dhmh.maryland.gov/flusurvey>

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**NOTE:** This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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